

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,917,489 B2  
DATED : July 12, 2005  
INVENTOR(S) : Ju-Il Lee

Page 1 of 3

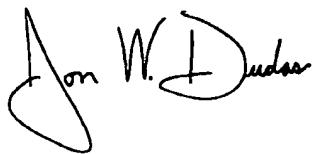
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page,  
Delete the figure, and replace with the attached figure.

Drawings,  
Sheet 1 of 2, delete the figure 2 in its entirety and replace with the attached figure.

Signed and Sealed this

Fourth Day of October, 2005



JON W. DUDAS  
Director of the United States Patent and Trademark Office

(12) United States Patent  
Lee

(10) Patent No.: US 6,917,489 B2  
(45) Date of Patent: Jul. 12, 2005

(54) APPARATUS AND METHOD FOR  
PERFORMING SEEK-SERVO ROUTINE OF  
HARD DISK DRIVE

(75) Inventor: Ju-Il Lee, Gumi-si (KR)

(73) Assignee: Samsung Electronics Co., LTD,  
Suwon-si (KR)

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 419 days.

(21) Appl. No.: 10/073,898

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(65) Prior Publication Data

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(51) Int. Cl. <sup>7</sup> ..... G11B 5/596

(52) U.S. Cl. ..... 360/78.06

(58) Field of Search ..... 360/78.06, 78.05,  
360/78.07; 318/560; 327/553

(56) References Cited

U.S. PATENT DOCUMENTS

5,936,792 A \* 8/1999 Kobayashi et al. ..... 360/78.07  
6,005,363 A \* 12/1999 Aralis et al. ..... 318/560

6,101,065 A 8/2000 Alfred et al.

6,268,765 B1 \* 7/2001 Gopinathan et al. ..... 327/553

6,441,988 B2 \* 8/2002 Kang et al. ..... 360/78.06

6,563,665 B1 \* 5/2003 Ell ..... 360/78.05

FOREIGN PATENT DOCUMENTS

EP	0 263 962	4/1988
EP	441 407	8/1991
GB	2 342 492	4/2000
JP	2304777	12/1990
KR	1999-15989	9/1991
WO	88/02913	4/1988

OTHER PUBLICATIONS

United Kingdom Patent Office Combined Search and  
Examination Report application No. GB 0125017.4 dated  
May 23, 2002.

\* cited by examiner

Primary Examiner—Sinh Tran

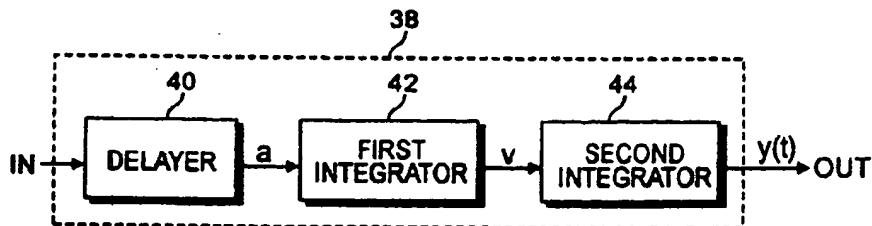
Assistant Examiner—K. Wong

(74) Attorney, Agent, or Firm—Robert E. Bushnell, Esq.

(57) ABSTRACT

A seek-servo apparatus and method used by a hard disk drive  
is capable of making the actual position of a head correctly  
follow the target position of the head irrespective of time  
delay. The seek-servo apparatus of a hard disk drive is  
capable of moving a head to a desired track location, and  
includes an actuator which moves the head to the desired  
track location in response to an acceleration command  
having a target acceleration, which leads a target velocity  
and a target position by a predetermined time. Therefore, the  
head can be correctly positioned at a desired location on a  
desired track in real time, and the time for the head to  
read/write information can be significantly shortened.

22 Claims, 2 Drawing Sheets



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FIG. 1

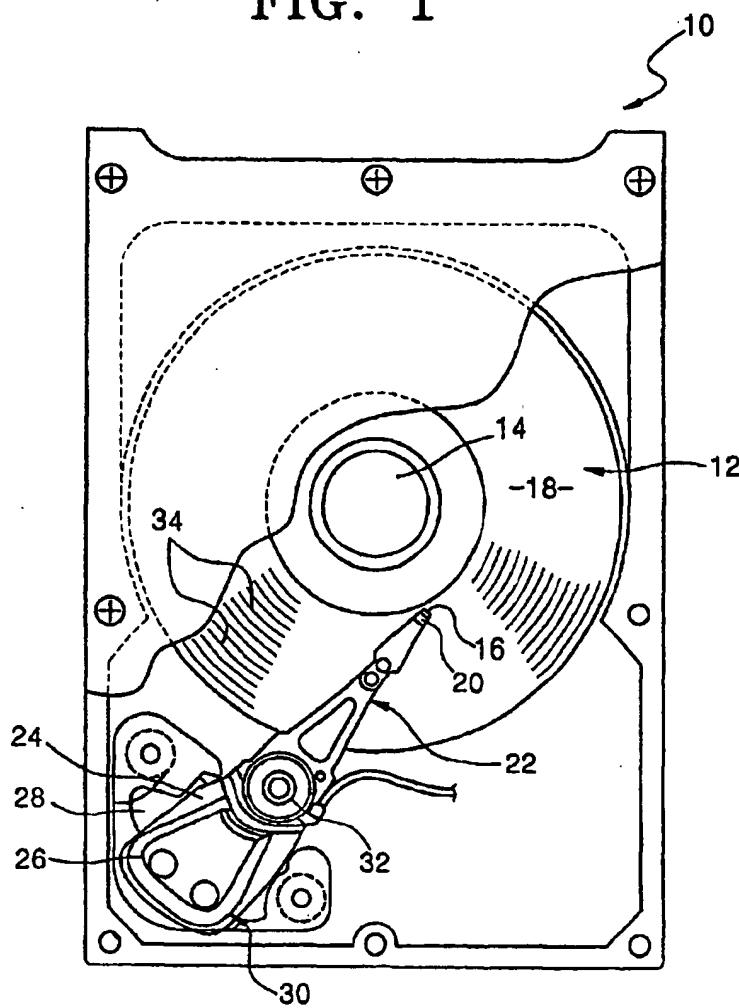


FIG. 2

